Description of the call light systems observed and the usability challenges associated with each system.

Call light system type	System description	Usability issues and challenges with the system
Traditional/type 1	- Two lights above residents' room - One console without a display at the nurse station - Four lights at the ceiling above the nurse station area to indicate 4 different areas in the unit - Auditory alarms are broadcasting at a nurse station in addition to multiple locations in the unit - Two speeds of auditory alarms—slow beeping for bedrooms call and fast beeping for bathroom calls - One nurse station in a U-shaped unit	-Nurse station is not occupied; no one to monitor the console/central display - Low/no discriminability - Lack of prioritization - If more than 1 area light is on, staff must check all these areas - Noise; load speakers - False alarms because of broken parts - Lack of feedback - Noise - Lights above the resident's rooms

	• Alarms can be canceled from residents' rooms	are not visible because of layout
Traditional/type 2	• Two lights above residents' doors • Console with a display at the nurse station • Auditory alarms are broadcast at the nurse station • One nurse station in a T-shaped unit • Alarms cannot be heard from inside rooms at the end of the hallways • No sound differences between alarms from bedroom and bathroom • Staff can mute the console • Alarms can be canceled from residents' rooms	• The nurse station is not staffed • The console can only display 1 room number • Low/no discriminability; is it a bedroom or bathroom • Lack of prioritization • Many broken parts/false alarms and redundancy of work • Console and auditory alarms are not accessible from residents' room and end of the hallways • The new alarm "overwrites" previous alarm • The lights above the resident's rooms are not visible because of layout

		• The staff can mute the system
Pager-based system	• Console with a display at the nurse station • The console can only display 1 room number and will keep switching between different room numbers in case of more than 1 alarm • Auditory alarms are broadest on the nurse station in addition to a beeping sound from the pagers • Alarms must be canceled from both the residents' rooms and the pagers	• The nurse station is not staffed • There is a lack of directional information. Console switches between room numbers every 5 seconds, and staff might cancel the wrong alarm • Pagers are muted most of the time • The staff has a busy schedule and cannot grab the pager every time they have an alarm • Certified nurse assistants must make trips to the nurse station to cancel the alarm, and alarms must be canceled from the pager and the console/center display

		• The lights above the resident's rooms are not visible because of layout • Staff might take a pager that is not for them (they take the pager at the beginning of the shift)